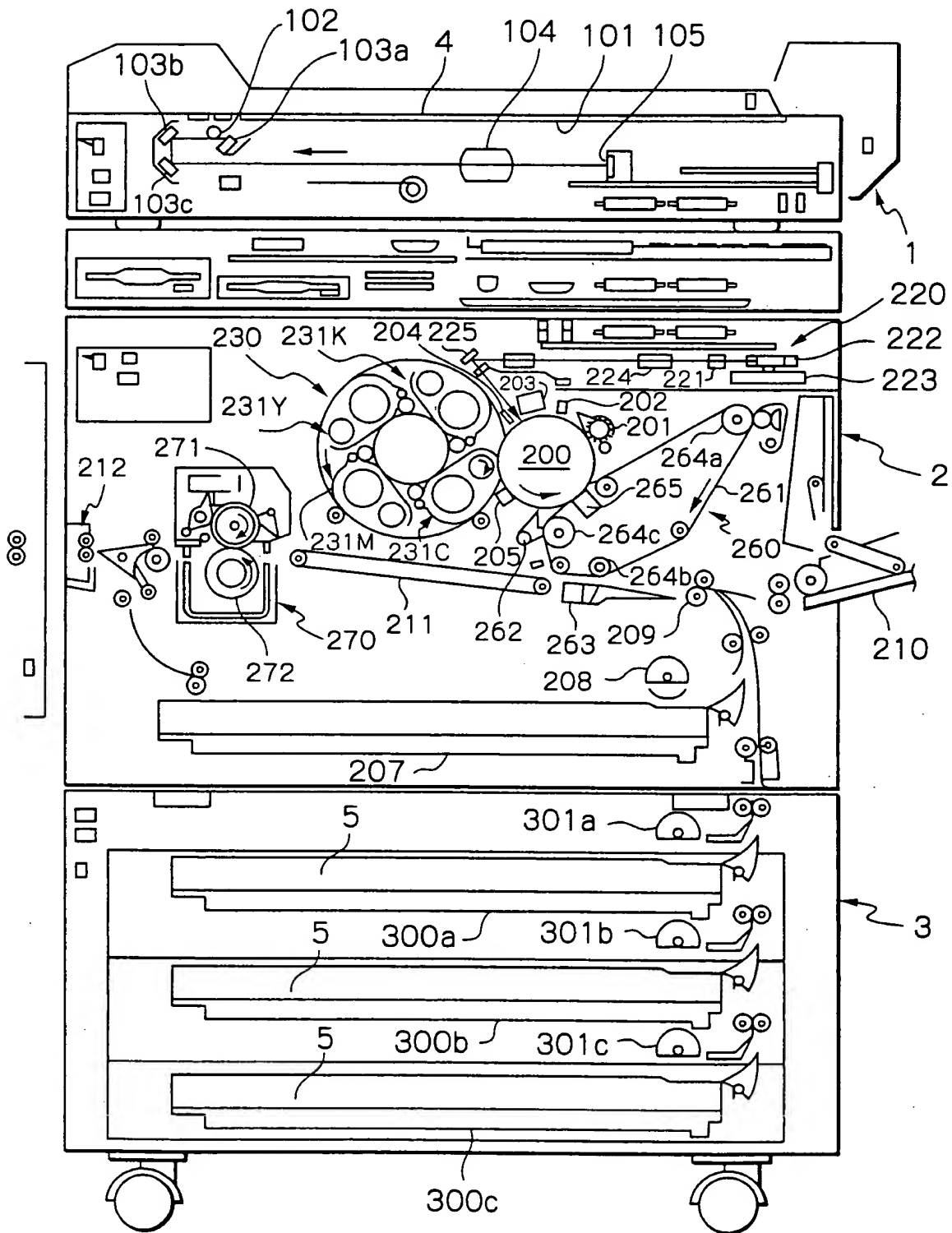
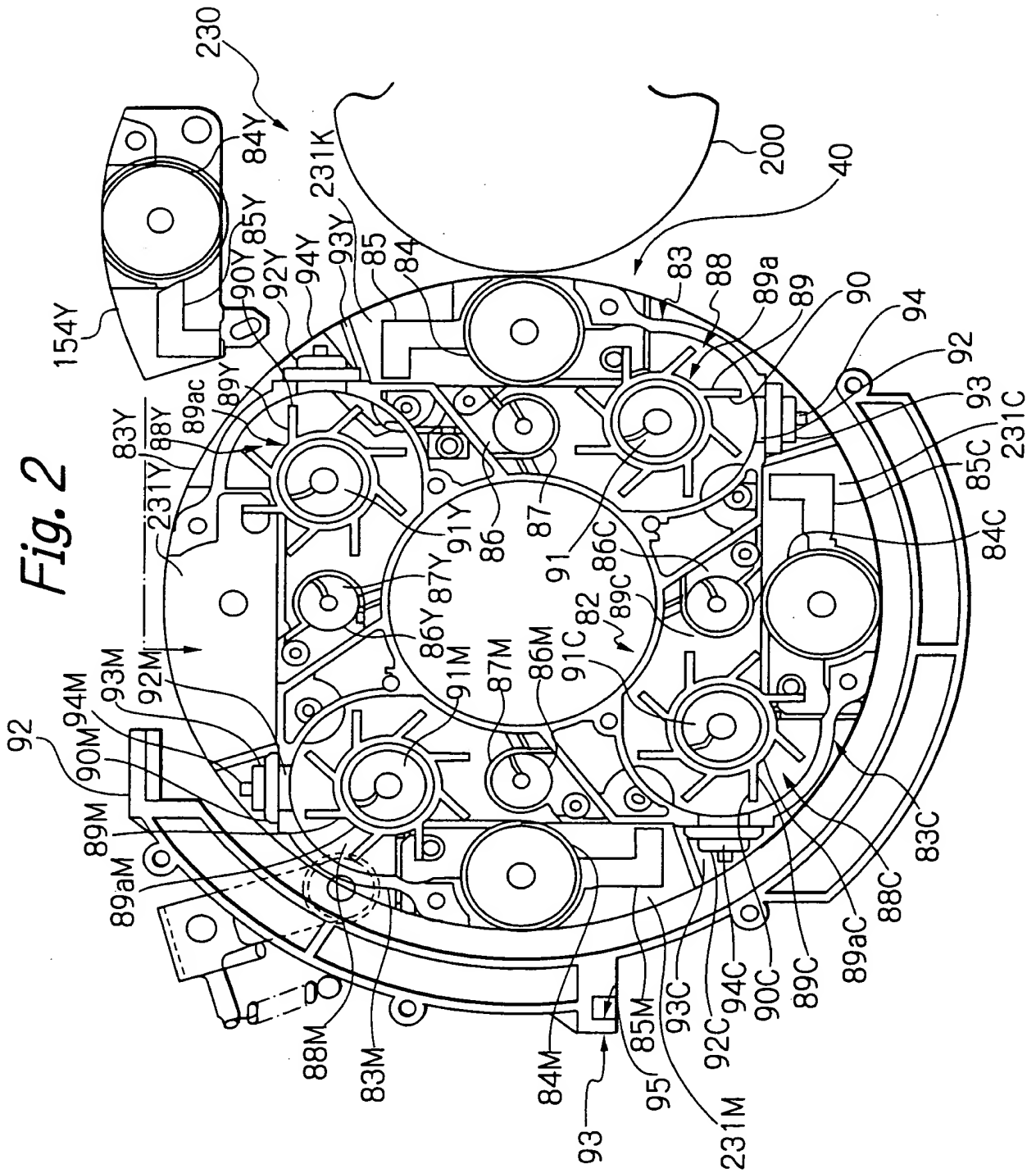
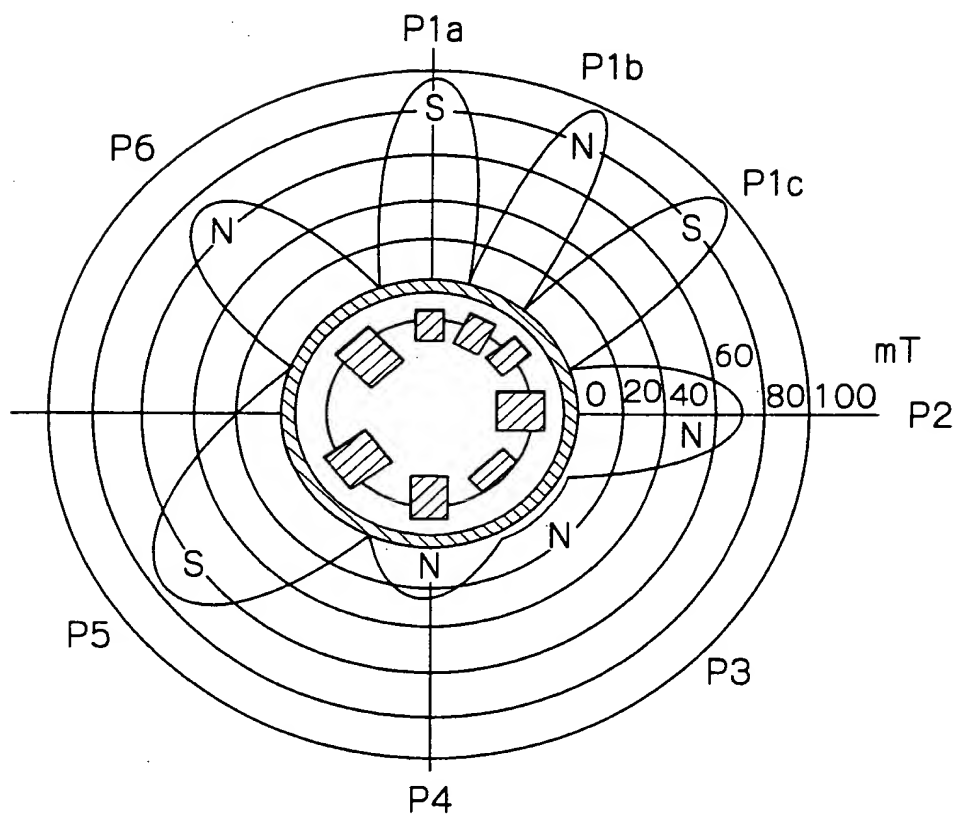


*Fig. 1*





*Fig. 3*



*Fig. 4*

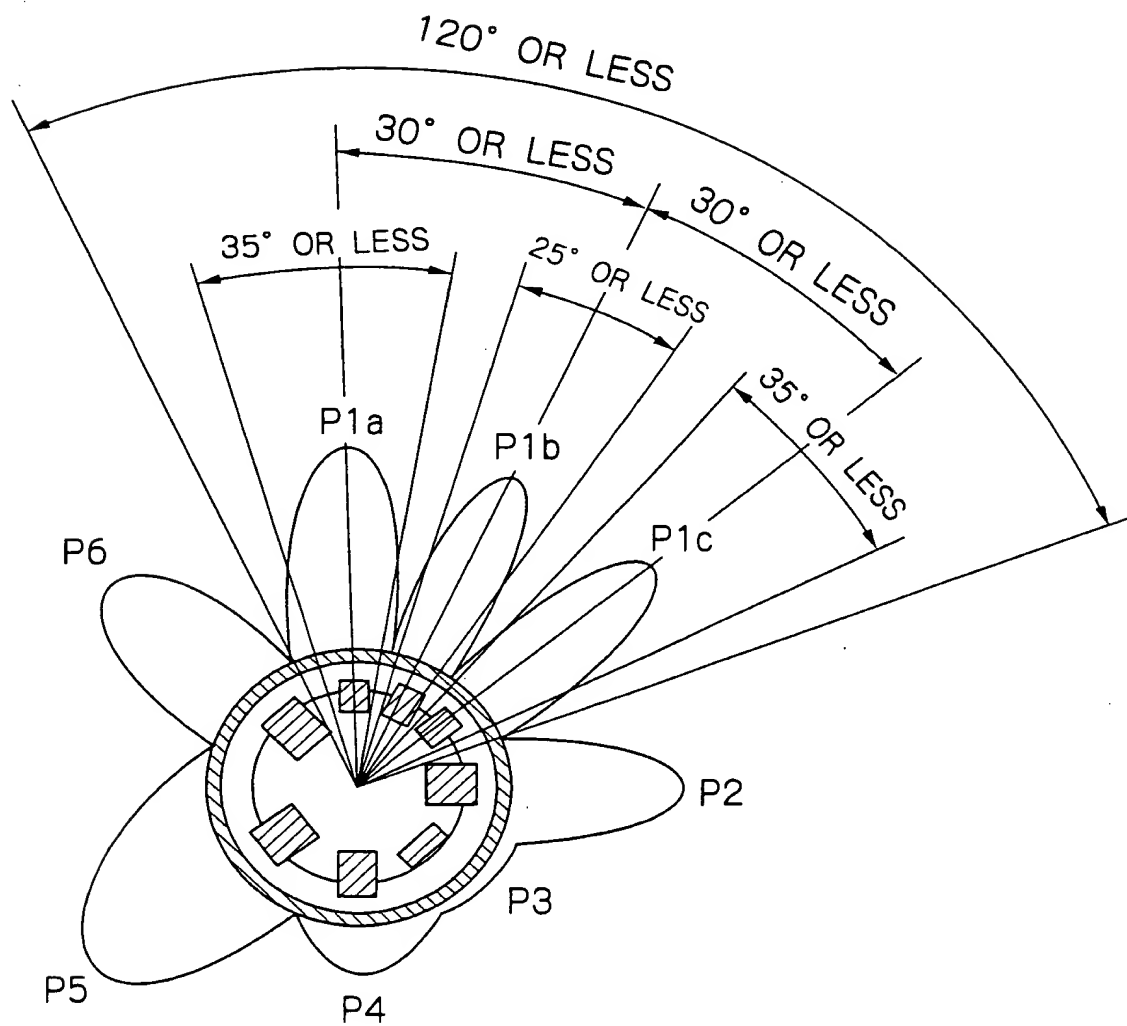
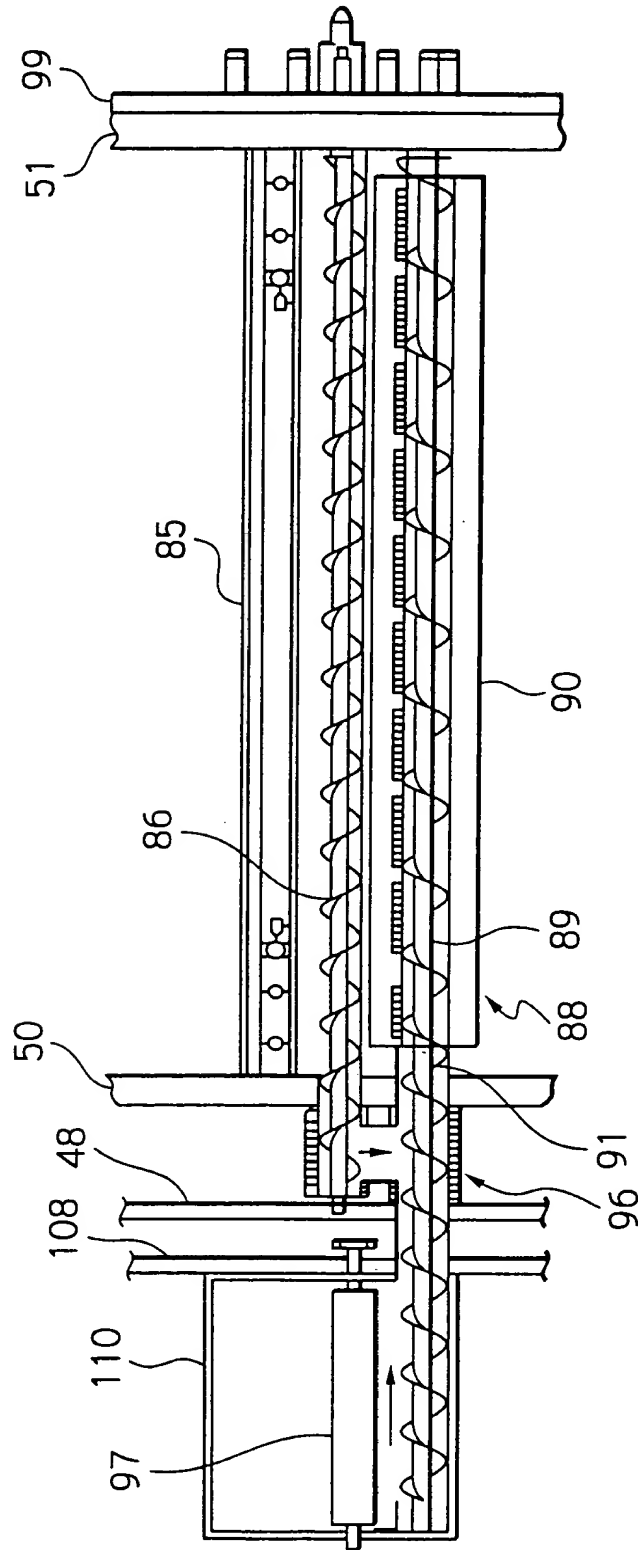
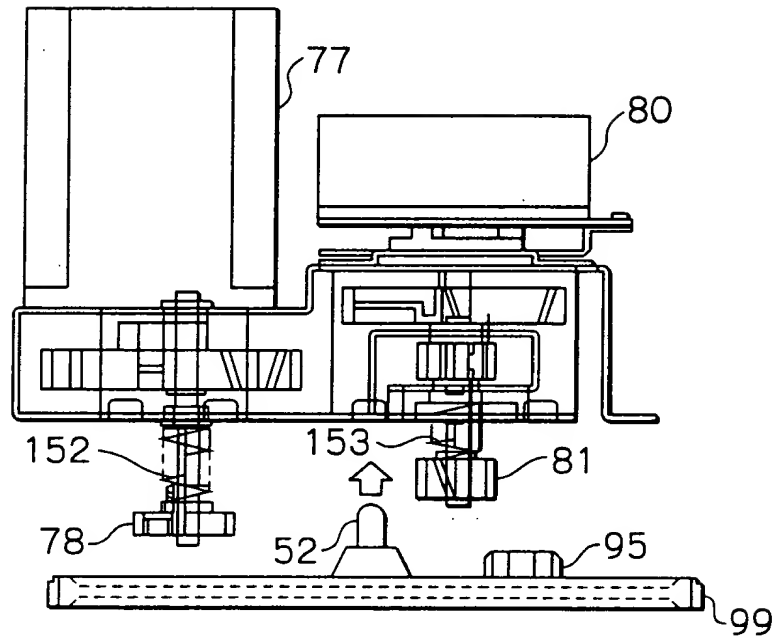


Fig. 5

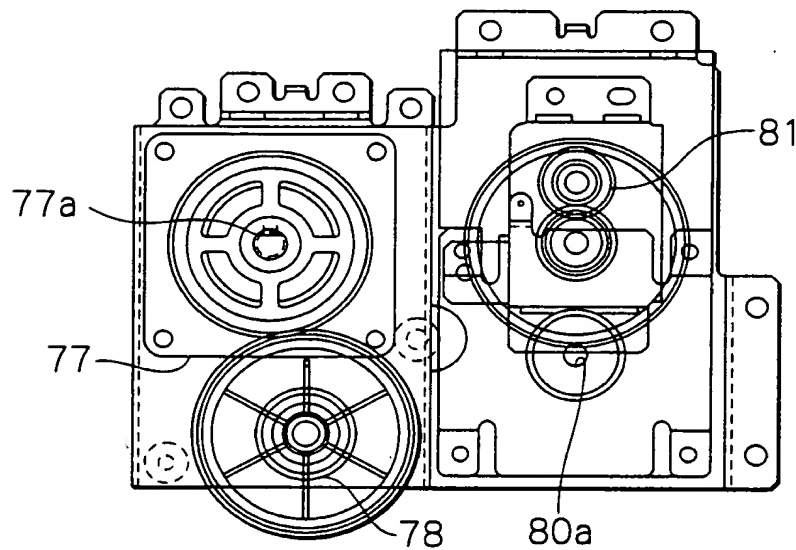


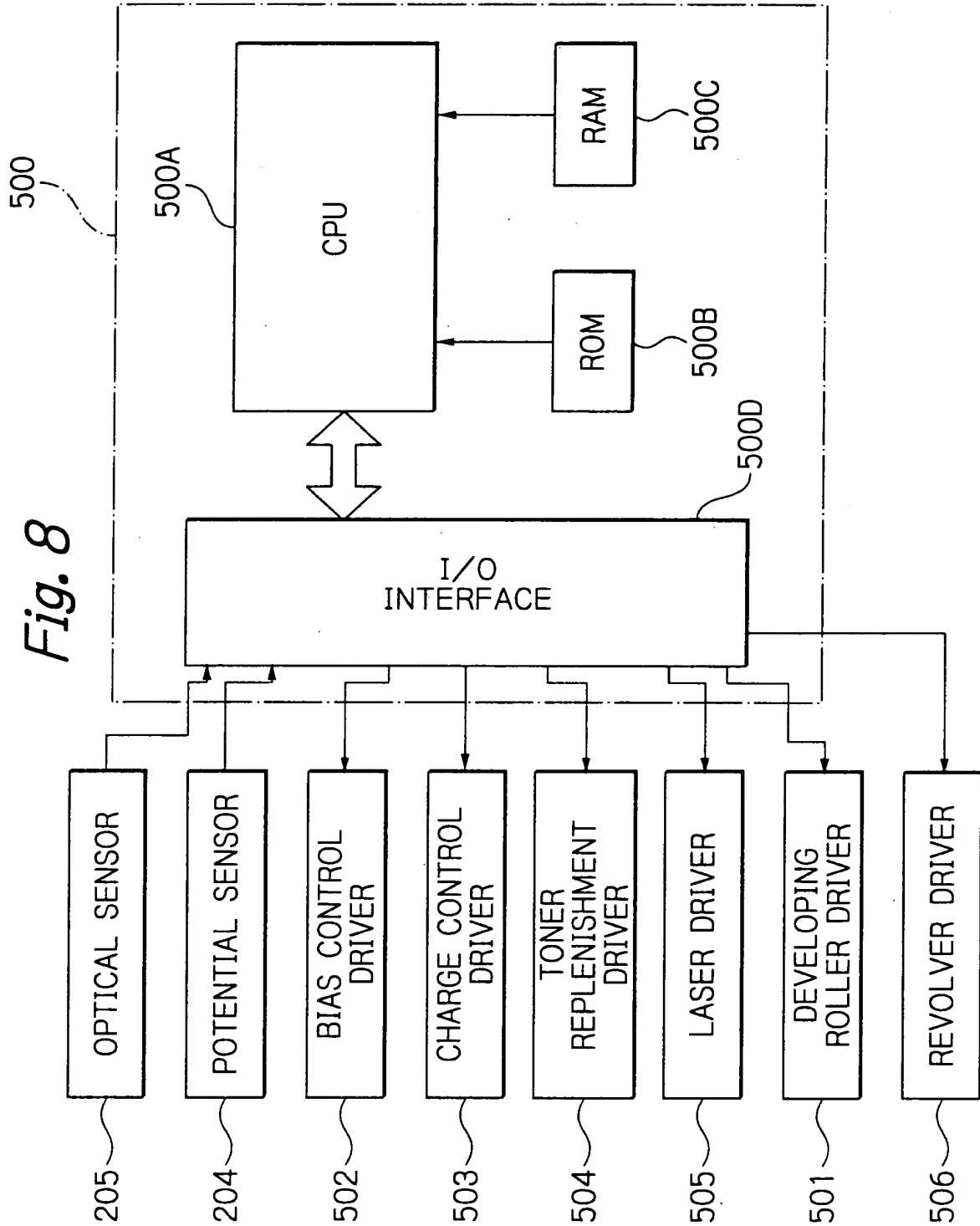


*Fig. 7A*

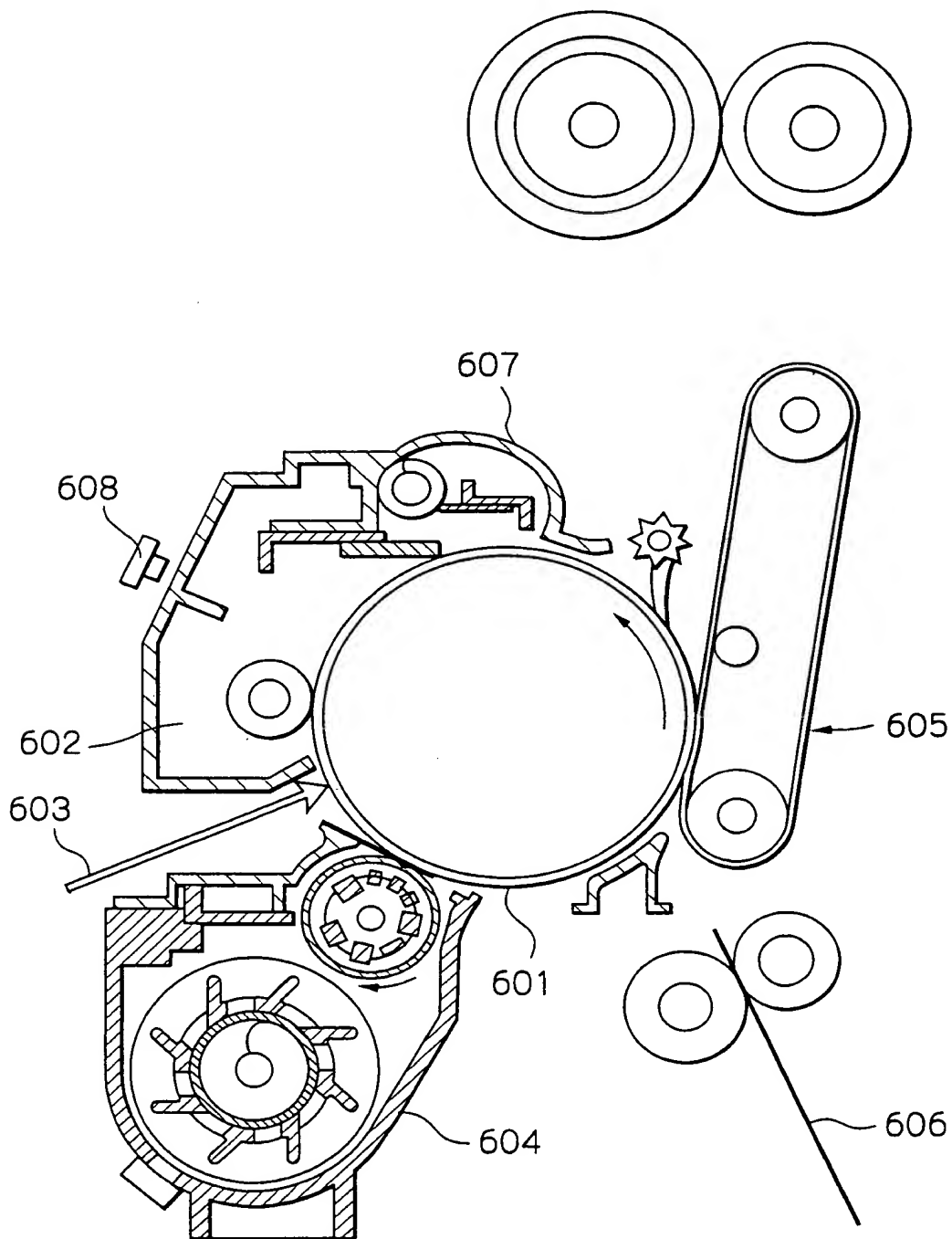


*Fig. 7B*





*Fig. 9*



*Fig. 10*

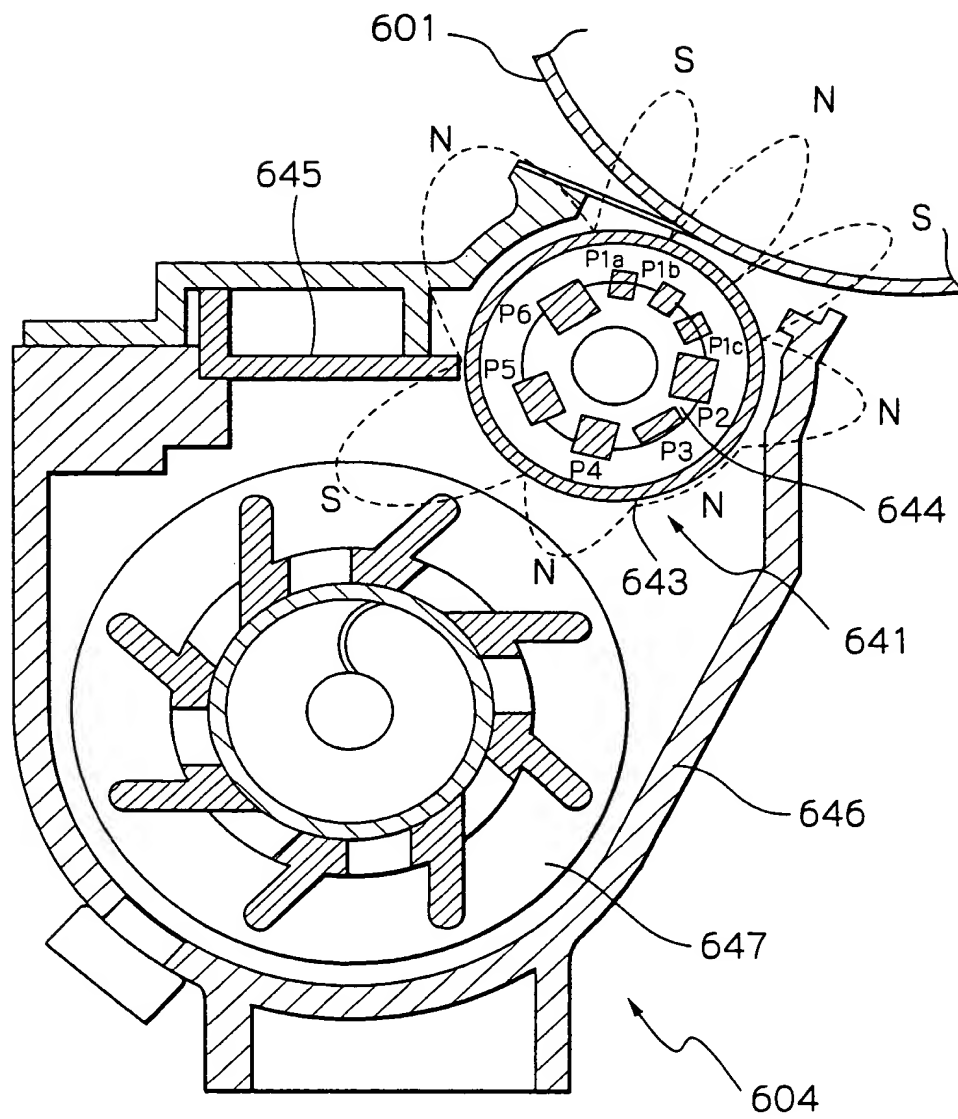


Fig. 11

| No.                                   | 1                    | 2    | 3    | 4    | 5            | 6    | 7    | 8    | 9    | 10   |
|---------------------------------------|----------------------|------|------|------|--------------|------|------|------|------|------|
| COPIER                                | MONOCHROMATIC COPIER |      |      |      | COLOR COPIER |      |      |      |      |      |
| SLEEVE VELOCITY/<br>DRUM VELOCITY     | 2.5                  | 2.5  | 2.5  | 2.5  | 1.3          |      |      |      |      |      |
| DRUM DIAMETER<br>(mm)                 | 30                   | 60   | 90   |      |              |      |      |      |      |      |
| SLEEVE DIAMETER<br>(mm)               | 16                   | 20   | 30   |      |              |      |      |      |      |      |
| DEVELOPMENT GAP<br>(mm)               | 0.4                  |      |      |      | 0.4          |      |      |      | 0.35 |      |
| NIP (mm)                              | 4                    | 1.5  | 4    | 2    | 7            | 7    | 4    | 4    | 1.5  | 1.5  |
| DISTANCE AT NIP<br>BOUNDARY (mm)      | 0.79                 | 0.45 | 0.67 | 0.47 | 0.95         | 0.95 | 0.58 | 0.58 | 0.42 | 0.42 |
| BOUNDARY<br>DISTANCE/<br>NIP DISTANCE | 1.67                 | 1.17 | 2.38 | 1.45 | 1.97         | 1.97 | 1.13 | 1.13 | 1.2  | 1.2  |
| BIAS                                  | DC -600V ONLY        |      |      |      | *1           | *2   | *1   | *2   | *1   | *2   |
| OMISSION RANK                         | 2.5                  | 4.5  | 2.5  | 4.5  | 3            | 3    | 4.5  | 4.5  | 4.5  | 4.5  |
| GRANULARITY<br>RANK                   | 2                    | 2    | 2    | 2    | 3            | 2    | 4.5  | 2    | 4.5  | 2    |

\*1 DC+AC, f5kHz, DUTY 25%, OFFSET VOLTAGE-700V, PEAK VOLTAGE 800V

\*2 DC-500V ONLY

*Fig. 12*

| FREQUENCY(kHz) | GRANULARITY<br>RANK |
|----------------|---------------------|
| 0              | 2                   |
| 0.5            | 3                   |
| 1              | 3.75                |
| 2              | 4                   |
| 2.25           | 4                   |
| 2.5            | 4.25                |
| 3              | 4.5                 |
| 3.5            | 4.5                 |
| 4              | 4.75                |
| 4.5            | 4.5                 |
| 5              | 4.5                 |
| 5.5            | 4.5                 |
| 6              | 4.5                 |
| 7              | 4.5                 |
| 9              | 4.5                 |

*Fig. 13*

| DUTY (%) | GRANULARITY<br>RANK |
|----------|---------------------|
| 10       | 4.75                |
| 15       | 4.75                |
| 20       | 4.75                |
| 25       | 4.75                |
| 30       | 4.75                |
| 35       | 4.75                |
| 40       | 4.75                |
| 45       | 4.25                |
| 50       | 4                   |
| 60       | 3.5                 |

Fig. 14

| Gp[mm] | Gd[mm] | Gp/Gd    | BIAS :<br>DC-500V   |                  | BIAS :<br>AC        |                  | f4.5kHz<br>Vpp 800V<br>DUTY 50% |
|--------|--------|----------|---------------------|------------------|---------------------|------------------|---------------------------------|
|        |        |          | GRANULARITY<br>RANK | OMISSION<br>RANK | GRANULARITY<br>RANK | OMISSION<br>RANK |                                 |
| 0.35   | 0.75   | 0.466667 | 1.5                 | 4                | 4.5                 | 4                |                                 |
| 0.43   | 0.83   | 0.518072 | 1.5                 | 4                | 4.5                 | 4                |                                 |
| 0.35   | 0.63   | 0.555556 | 1.5                 | 4                | 4                   | 4                |                                 |
| 0.43   | 0.75   | 0.573333 | 1.5                 | 4                | 4                   | 4                |                                 |
| 0.5    | 0.83   | 0.60241  | 1.5                 | 4                | 4                   | 4                |                                 |
| 0.5    | 0.75   | 0.666667 | 1.5                 | 4                | 4                   | 4                |                                 |
| 0.35   | 0.52   | 0.673077 | 1                   | 4                | 3.5                 | 4                |                                 |
| 0.43   | 0.63   | 0.68254  | 1                   | 4                | 3.5                 | 4                |                                 |
| 0.43   | 0.52   | 0.826923 | 1                   | 4                | 3                   | 4                |                                 |
| 0.6    | 0.52   | 1.153846 | 1                   | 4                | 2                   | 4                |                                 |

*Fig. 15*

| Gp[mm] | Gd[mm] | Gp/Gd    | BIAS:<br>DC-500V    |                  | BIAS:<br>AC | f4.5kHz<br>Vpp 800V<br>DUTY 50% |
|--------|--------|----------|---------------------|------------------|-------------|---------------------------------|
|        |        |          | GRANULARITY<br>RANK | OMISSION<br>RANK |             |                                 |
| 0.35   | 0.75   | 0.466667 | 1                   | 2                | 3.5         | 2                               |
| 0.35   | 0.64   | 0.546875 | 1                   | 2                | 3.5         | 2                               |
| 0.4    | 0.64   | 0.625    | 1                   | 2                | 3.5         | 2                               |
| 0.45   | 0.56   | 0.803571 | 1                   | 2                | 3.5         | 2                               |
| 0.5    | 0.56   | 0.892857 | 1                   | 2.5              | 3.5         | 2.5                             |
| 0.6    | 0.85   | 0.705882 | 1                   | 2.75             | 2           | 2.75                            |
| 0.6    | 0.91   | 0.659341 | 1                   | 2.75             | 2           | 2.75                            |

Fig. 16

| Gp[mm] | $\rho$ [g/cm <sup>2</sup> ] | Gp/ $\rho$ | BIAS:<br>DC-500V    |                  | BIAS:<br>AC         |                  | f4.5kHz<br>Vpp 800V<br>DUTY 50% |
|--------|-----------------------------|------------|---------------------|------------------|---------------------|------------------|---------------------------------|
|        |                             |            | GRANULARITY<br>RANK | OMISSION<br>RANK | GRANULARITY<br>RANK | OMISSION<br>RANK |                                 |
| 0.35   | 0.065                       | 5.384615   | 1.5                 | 4                | 4.5                 | 4                |                                 |
| 0.43   | 0.08                        | 5.375      | 1.5                 | 4                | 4.5                 | 4                |                                 |
| 0.35   | 0.05                        | 7          | 1.5                 | 4                | 4                   | 4                |                                 |
| 0.43   | 0.065                       | 6.615385   | 1.5                 | 4                | 4                   | 4                |                                 |
| 0.5    | 0.08                        | 6.25       | 1.5                 | 4                | 4                   | 4                |                                 |
| 0.5    | 0.065                       | 7.692308   | 1.5                 | 4                | 4                   | 4                |                                 |
| 0.35   | 0.035                       | 10         | 1                   | 4                | 3.5                 | 4                |                                 |
| 0.43   | 0.05                        | 8.6        | 1                   | 4                | 3.5                 | 4                |                                 |
| 0.43   | 0.036                       | 11.94444   | 1                   | 4                | 3                   | 4                |                                 |
| 0.6    | 0.035                       | 17.14286   | 1                   | 4                | 2                   | 4                |                                 |

Fig. 17

| Gp[mm] | $\rho$ [g/cm <sup>2</sup> ] | Gp/ $\rho$ | BIAS:<br>DC-500V    |                  | BIAS:<br>AC         |                  | f4.5kHz<br>Vpp 800V<br>DUTY 50% |
|--------|-----------------------------|------------|---------------------|------------------|---------------------|------------------|---------------------------------|
|        |                             |            | GRANULARITY<br>RANK | OMISSION<br>RANK | GRANULARITY<br>RANK | OMISSION<br>RANK |                                 |
| 0.35   | 0.065                       | 5.384615   | 1                   | 2                | 3.5                 | 2                |                                 |
| 0.35   | 0.05                        | 7          | 1                   | 2                | 3.5                 | 2                |                                 |
| 0.4    | 0.05                        | 8          | 1                   | 2                | 3.5                 | 2                |                                 |
| 0.45   | 0.04                        | 11.25      | 1                   | 2                | 3.5                 | 2                |                                 |
| 0.5    | 0.04                        | 12.5       | 1                   | 2.5              | 3.5                 | 2.5              |                                 |
| 0.6    | 0.076                       | 7.894737   | 1                   | 2.75             | 2                   | 2.75             |                                 |
| 0.6    | 0.085                       | 7.058824   | 1                   | 2.75             | 2                   | 2.75             |                                 |